

## **REMARKS**

Applicants thank the Examiner for total consideration given the present application. Claims 1 and 2-19 are pending of which claims 1, 8, and 15 are independent. Claims 1, 8, 15, 18, and 19 have been amended through this Reply. Applicants respectfully request reconsideration of the rejected claims in light of the remarks presented herein, and earnestly seek timely allowance of all pending claims.

### **I. Claim Rejections Under 35 U.S.C. § 102(b)**

Claims 1, 3-6, 8, 15 and 17-19 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Yamamoto et al. (U.S. Patent No. 55,226,298)[hereinafter "Yamamoto"] in view of Maisotsenko et al. (U.S. Patent Publication No. 2003/0145609)[hereinafter "Maisotsenko"]]. This rejection is respectfully traversed.

For a Section 103 rejection to be proper, a *prima facie* case of obviousness must be established. *See M.P.E.P. 2142*. One requirement to establish *prima facie* case of obviousness is that the prior art references, when combined, must teach or suggest all claim limitations. *See M.P.E.P. 2142; M.P.E.P. 706.02(j)*. Thus, if the cited references fail to teach or suggest one or more elements, then the rejection is improper and must be withdrawn.

In this instance, Yamamoto fails to teach or suggest each and every claimed element. For example, amended independent claim 1 recites, *inter alia*, "a plurality of said second air ventilation passages is separated by said opening into an entry opening and an exit opening situated respectively on one passagewise side of the plurality of bended second air ventilation passage forming member and on the opposite passagewise side of the bended second air ventilation passage forming member thereof, wherein passage lengths of the entry opening and the exit opening do not extend the full length of the cooling element such that the cooling air flowing in the openings is brought into direct contact with the adsorption element." *Emphasis added.*

As previously submitted, Yamamoto et al. teaches a thermoelectric air conditioner with absorbent heat exchanger surfaces. Yamamoto et al. teaches a flat thermoelectric device, the device having one surface as a heating surface and the other surface as a cooling surface; and flow passages respectively provided for two fluids and which are arranged to intersect with each other while holding the thermoelectric device therebetween (column 2, lines 9-16).

More specifically, Yamamoto et al. teaches an air conditioner which includes corrugated fins 12 and 13 provided on opposing sides of each of a plurality of corrugated thermoelectric devices 11 so that fluid flowing through corrugated fin 12 does not intermingle with the fluid flowing through corrugated fin 13 (see abstract and Fig. 3).

The Examiner interprets the corrugated fins 12 and 13 as disclosing the claimed adsorption element and the plurality of corrugated thermoelectric devices 11 as disclosing the claimed cooling element. It is again respectfully submitted that the Examiner's such interpretation is totally unfounded. Even if, *assuming arguendo*, Yamamoto's corrugated thermoelectric devices 11 include an entry opening and an exit opening, such entry and exit opening is not separated by an "opening" as claimed by the Applicant. Moreover, claim 1 has been amended to clarify that the plurality of the second air ventilation passages is separated by the opening into an entry opening and an exit opening situated respectively on one passagewise side of the plurality of bended second air ventilation passage forming member and on the opposite passagewise side of the bended second air ventilation passage forming member thereof. It is respectfully submitted that Yamamoto does not have the above-identified structure for the thermoelectric devices 11 or the corrugated fins 12 and 13.

Indeed, the Examiner acknowledges that Yamamoto fails to teach or suggest that the passage lengths of the corrugated thermoelectric devices 11 or the corrugated fins 12 and 13 do not extend the full length of the thermoelectric devices 11 or the corrugated fins 12 and 13. Thus, the Examiner imports Maisotsenko in an attempt to fulfill the deficiency of Yamamoto. More specifically, the Examiner points to the perforations or holes 11, as shown in Fig. 1D of Maisoksenko, as disclosing the "opening" claimed by the Applicant. It is respectfully submitted that the perforations or holes 11 of Maisoksenko do not separate the gas channel 4 into an entry

opening and an exit opening situated respectively on one passagewise side of a plurality of bended second air ventilation passage forming member and on the opposite passagewise side of the bended second air ventilation passage forming member thereof. Maisoksenko's perforations or holes 11 within the gas channel 4 merely provides a connection point for working stream 2 from dry side 9 to wet side 10.

Further, even if Yamamoto and Maisoksenko are combined, the combination would render the functionality of Yamamoto in operative. Yamamoto requires that there should be no intermingling between the two fluids flowing through fins 12 and 13 (see Abstract and Fig. 3). Thus, if Maisoksenko's plate 6, which contains channel 4 with perforations, is substituted with the corrugated thermoelectric devices 11 of Yamamoto which separate the corrugated fins 12 and 13, the two fluids flowing through these fins would intermingle with each other. Thus, one of ordinary skill in the art would not be motivated to combine Yamamoto and Maisoksenko.

Therefore, for at least these reasons, independent claim 1 is distinguishable from the combined invention of Yamamoto and Maisoksenko.

Independent claim 8 recites, *inter alia*, "said cooling element is provided with openings which overlap with said second air ventilation passages such that said second air ventilation passages of the plurality of bended second air ventilation passage forming member are each separated passagewise so as to include an entry opening and an exit opening, wherein passage lengths of the entry opening and the exit opening do not extend the full length of the cooling element such that the cooling air flowing in the openings is brought into direct contact with the adsorption element" and 15 recites, *inter alia*, "said cooling element is provided with openings which overlap with said second air ventilation passages such that said second air ventilation passages of the plurality of bended second air ventilation passage forming member are each divided passagewise so as to include an entry opening and an exit opening, wherein passage lengths of the entry opening and the exit opening do not extend the full length of the cooling element such that the cooling air flowing in the openings is brought into direct contact with the adsorption element". At least for the reasons stated with respect to claim 1 above, the combination of Yamamoto and Maisoksenko cannot teach or suggest the above-identified claim features of independent claims 8 and 15. Claims 3-6 and 17-19 are also distinguishable from

Yamamoto at least by virtue of their dependency on corresponding independent claim. Further, it is respectfully submitted that neither Yamamoto nor Maisoksenko, either alone or in combination, teaches or suggest a cooling element comprising a "flat side-plate" as recited in claims 18 and 19.

Accordingly, Applicants respectfully request that the rejection of claims 1, 3-6, 8, 15 and 17-19, based on Yamamoto and Maisoksenko, be withdrawn.

## **II. Claims Rejections Under 35 U.S.C. § 103(a)**

The Examiner has rejected claims 7, 9-12, and 16 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Yamamoto in view of Maisotsenko, in further view of Iacollo (U.S. Patent No. 5,547,019)[hereinafter "Iacollo"]. Claims 13 and 14 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Yamamoto in view of Maisotsenko, in further view of Hickley et al. (U.S. Patent No. 4,854,129)[hereinafter "Hickley"]. Applicant respectfully traverses the rejection. Neither Iacolla nor Hickley remedies the noted deficiencies of Yamamoto and Maisotsenko. Iacolla or Hickley is only relied upon to teach dependent claim features. This reliance on Iacolla or Hickley fails to make up for the deficiencies of Yamamoto and Maisotsenko discussed above with respect to independent claims 1, 8 and 15. Therefore, the asserted combination of Yamamoto, Maisotsenko, and Iacolla or Yamamoto, Maisotsenko, and Hickley (assuming these references may be combined, which Applicants do not admit) fails to establish *prima facie* obviousness of any pending claim.

Accordingly, Applicants submit that claims 7, 9-14, and 16 are allowable at least by virtue of their dependency on claims 1, 8 and 15. Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

## **Conclusion**


All matters having been addressed in view of the foregoing, Applicants respectfully request the entry of this Amendment, the Examiner's reconsideration of this application, and the immediate allowance of all pending claims.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Ali M. Imam, Reg. No. 58,755 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.147; particularly, extension of time fees.

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Respectfully submitted,

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